

In the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A method of producing a packet group for use in a trace stream of packets that includes a plurality of packet groups, wherein the trace stream of packets carries information fields that have been captured from a data processor while in use for processing operations performed by the data processor, wherein the trace stream of packets accommodates information fields of differing lengths, and wherein each said packet provides capacity to carry a respective said information field having a shortest length among said differing lengths, the method comprising:

providing at least one said packet as at least one header packet within the packet group; and

arranging at least one plurality of further said packets to form a corresponding at least one packet subgroup within the packet group, wherein said further packets of said at least one packet subgroup are provided to carry respective portions of at least one said information field that is longer than said shortest length;

wherein each of said further packets has an extension portion and a payload portion, wherein said payload portion provides said capacity, wherein a field in the at least one header packet includes a portion that indicates a number of packet subgroups provided in the packet group, wherein a first of said further packets includes a first said extension portion, wherein a remainder of said further packets follow the first packet in said at least one packet subgroup and contain content whose essence is the same as content contained in the first

~~packet such that said at least one packet subgroup constitutes a single field in the trace stream, and wherein each of said remainder of said further packets has a second said extension portion that differs from said first extension portion.~~

2. (Previously Presented) The method as recited in claim 1 wherein said packet group ends when a next packet of the trace stream that immediately follows a packet of the last packet subgroup does not have the second extension portion.
3. (Previously Presented) The method as recited in claim 2 wherein said next packet begins a new packet group.
4. (Previously Presented) The method as recited in claim 1 wherein said number of packet subgroups, together with said first extension portions, permit identification of a next successive packet group in the trace stream even though said next successive packet group lacks a header packet.
5. (Canceled)
6. (Currently Amended) A processor test and debug system, the system comprising:
  - a host processing unit; and
  - a target processor, the target processor transmitting a trace stream[[s]] of packets to the host processing unit, the trace streams permitting the host processing unit to reconstruct the operation of the target processing unit, wherein the trace stream of packets carries information fields that have been captured from the target processor while in use for processing operations performed by the target processor, wherein the trace stream of packets accommodates information

fields of differing lengths, and wherein each said packet provides capacity to carry a respective said information field having a shortest length among said differing lengths, at least one of the trace stream[[s]] of packets comprising a sequence of packet groups, each said packet group including:

at least one said packet provided as at least one header packet; and

at least one packet subgroup containing a plurality of further packets, wherein said further packets of said at least one packet subgroup are provided to carry respective portions of at least one said information field that is longer than said shortest length;

wherein each of said further packets has an extension portion and a payload portion, wherein said payload portion provides said capacity, wherein a field in the at least one header packet includes a portion that indicates a number of packet subgroups provided in the associated packet group, wherein a first of said further packets includes a first said extension portion, wherein a remainder of said further packets follow the first packet in said at least one packet subgroup and contain content whose essence is the same as content contained in the first packet such that said at least one packet subgroup constitutes a single field in the trace stream, and wherein each of said remainder of said further packets has a second said extension portion that differs from said first extension portion.

7. (Previously Presented) The system as recited in claim 6, wherein one of said packet groups ends when a next packet of said at least one trace stream that immediately follows a packet of the last packet subgroup within said one packet group does not have the second extension portion.

8. (Previously Presented) The system as recited in claim 7 wherein said next packet begins a new packet group.

9. (Currently Amended) A method for transferring information from a target processor to a host processing unit in a trace stream of packets, wherein the trace stream of packets carries information fields that have been captured from the target processor while in use for processing operations performed by the target processor, wherein the trace stream of packets accommodates information fields of differing lengths, and wherein each said packet provides capacity to carry a respective said information field having a shortest length among said differing lengths, the method comprising:

dividing the packets into packet groups;

formatting each packet group to include to provide at least one said packet as at least one header packet; and

formatting each packet group to include at least one packet subgroup containing a plurality of further packets, wherein said further packets of said at least one packet subgroup are provided to carry respective portions of at least one said information field that is longer than said shortest length;

wherein each of said further packets has an extension portion and a payload portion, wherein said payload portion provides said capacity, wherein a ~~field in~~ the at least one header packet includes a portion that indicates a number of packet subgroups provided in the packet group, wherein a first of said further packets includes a first said extension portion, wherein a remainder of said further packets follow the first packet in said at least one packet subgroup ~~and contain content whose essence is the same as content contained in the first packet such that said at least one packet subgroup constitutes a single field in the trace stream,~~ and wherein each of said remainder of said further packets has a second said extension portion that differs from said first extension portion.

10. (Previously Presented) The method as recited in claim 9 wherein each said packet group ends when a next packet of the trace stream that immediately

follows a packet of the last packet subgroup does not have the second extension portion.

11. (Canceled)